

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

- 1           1. (Currently amended) A method to facilitate debugging computer code  
2    within an operating system kernel, comprising:
  - 3           receiving a source file containing a data structure definition, wherein the  
4    source file contains a plurality of data structures;  
5           searching the source file for the data structure definition;  
6           upon finding the data structure definition, saving the data structure  
7    definition in a storage structure;  
8           automatically generating a new source code to display a data structure  
9    through execution of a source generator program, wherein the new source code is  
10   created using the data structure definition, ~~and~~ wherein automatically generating  
11   the new source code includes automatically generating source code to walk a  
12   linked list of data structures, and wherein generating the new source code  
13   involves:
    - 14                   examining the plurality of data structures in the storage  
15                   structure to locate a cross-reference between data structures, and  
16                   generating the new source code for the plurality of data  
17                   structures;  
18           compiling the new source code into an executable module;  
19           installing the executable module into a modular debugger; and

20           during execution of the modular debugger, displaying a content of the data  
21   structure to a user of the modular debugger using the executable module, whereby  
22   the user is able to view the content of the data structure.

1           2. (Original) The method of claim 1, wherein receiving the source file  
2   includes receiving a plurality of source files.

1           3 (Canceled).

1           4. (Currently amended) The method of ~~claim 3~~ claim 1, wherein saving the  
2   data structure definition in the storage structure includes saving the plurality of  
3   data structures in the storage structure.

1           5-6 (Canceled).

1           7. (Previously presented) The method of claim 1, wherein displaying the  
2   content of the data structure includes displaying the content of the linked list of  
3   data structures.

1           8. (Original) The method of claim 1, wherein the data structure definition  
2   includes one of a tree, a linked list, a doubly linked list, and a queue.

1           9. (Currently amended) A computer-readable storage medium storing  
2   instructions that when executed by a computer cause the computer to perform a  
3   method to facilitate debugging computer code within an operating system kernel,  
4   the method comprising:

5           receiving a source file containing a data structure definition, wherein the  
6   source file contains a plurality of data structures;

7           searching the source file for the data structure definition;  
8           upon finding the data structure definition, saving the data structure  
9       definition in a storage structure;  
10          automatically generating a new source code to display a data structure  
11       through execution of a source generator program, wherein the new source code is  
12       created using the data structure definition, ~~and~~ wherein automatically generating  
13       the new source code includes automatically generating source code to walk a  
14       linked list of data structures, and wherein generating the new source code  
15       involves:  
16                       examining the plurality of data structures in the storage  
17                       structure to locate a cross-reference between data structures, and  
18                       generating the new source code for the plurality of data structures;  
19       compiling the new source code into an executable module;  
20       installing the executable module into a modular debugger; and  
21       during execution of the modular debugger, displaying a content of the data  
22       structure to a user of the modular debugger using the executable module, whereby  
23       the user is able to view the content of the data structure.

1           10. (Original) The computer-readable storage medium of claim 9, wherein  
2       receiving the source file includes receiving a plurality of source files.

1           11 (Canceled).

1           12. (Currently amended) The computer-readable storage medium of ~~claim~~  
2       ~~11~~ claim 9, wherein saving the data structure definition in the storage structure  
3       includes saving the plurality of data structures in the storage structure.

1           13-14 (Canceled).

1           15. (Previously presented) The computer-readable storage medium of  
2 claim 9, wherein displaying the content of the data structure includes displaying  
3 the content of the linked list of data structures.

1           16. (Original) The computer-readable storage medium of claim 9, wherein  
2 the data structure definition includes one of a tree, a linked list, a doubly linked  
3 list, and a queue.

1           17. (Currently amended) An apparatus to facilitate debugging computer  
2 code within an operating system kernel, comprising:  
3           a receiving mechanism that is configured to receive a source file  
4 containing a data structure definition;  
5           a search mechanism that is configured to search the source file for the data  
6 structure definition, wherein the search mechanism is further configured to search  
7 the source file for a plurality of data structures;  
8           a saving mechanism that is configured to save the data structure definition  
9 in a storage structure;  
10          an automatic code generating mechanism that is configured to  
11 automatically generate a new source code to display a data structure through  
12 execution of a source generator program, wherein the new source code is created  
13 using the data structure definition;  
14          wherein the automatic code generating mechanism is further configured to  
15 automatically generate source code to walk a linked list of data structures;  
16          an examining mechanism that is configured to examine the plurality of  
17 data structures in the storage structure to locate a cross-reference between data  
18 structures;  
19          wherein the generating mechanism is further configured to generate the  
20 new source code for the plurality of data structures;

21           a compiling mechanism that is configured to compile the new source code  
22 into an executable module;  
23           an installing mechanism that is configured to install the executable module  
24 into a modular debugger; and  
25           a displaying mechanism that is configured to display a content of the data  
26 structure to a user of the modular debugger using the executable module, whereby  
27 the user is able to view the content of the data structure.

1           18. (Original) The apparatus of claim 17, wherein the receiving  
2 mechanism is further configured to receive a plurality of source files.

1           19 (Canceled).

1 |           20. (Currently amended) The apparatus of ~~claim 19~~ claim 17, wherein the  
2 saving mechanism is further configured to save the plurality of data structures in  
3 the storage structure.

1           21-22 (Canceled).

1           23. (Previously presented) The apparatus of claim 17, wherein the  
2 displaying mechanism is further configured to display the content of the linked list  
3 of data structures.

1           24. (Original) The apparatus of claim 17, wherein the data structure  
2 definition includes one of a tree, a linked list, a doubly linked list, and a queue.